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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,785	03/29/2000	Yuta Aono	FUJ117,175	7257

7590 08/03/2004

Katten, Muchin, Zavis & Rosenman  
575 Madison Ave  
New York, NY 10022-2585

EXAMINER

TSEGAYE, SABA

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/537,785

Applicant(s)

AONO ET AL

Examiner

Saba Tsegaye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 1-8, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Response to Amendment***

1. Claims 1-16 are pending. Claims 14- 16 are allowed, claims 9-11 are objected and claims 1-8, 12 and 13 are rejected.

2. The drawings were received on 08/28/03. These drawings are approved.

***Claim Rejections - 35 USC § 103***

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (US 6,477,238) in view of Day (US 5,734,696).

Schneider discloses, in Figs. 3 and 4, an order wire monitoring method for monitoring a quality of an order wire line which couples a plurality of an order wire lines which couples a plurality of transmission apparatuses (CO test unit 165; CP test unit 265) via multiplexing lines which multiplex and transmit main and order wire signal, comprising the steps of:

specifying a transmission apparatus (CO test unit 165) which is to transmit test data as a specified transmitting apparatus (CO test unit 165), and a transmission apparatus which is to receive test data as a specified receiving apparatus (CP test unit 265) (column 15, line 54-column 16, line 8);

transmitting the test data from the specified transmitting apparatus to the order wire line in response to a start of test (column 16, lines 9-26);

receiving and temporarily storing the test data in the specified receiving apparatus (CP test unit 265; column 15, lines 18-31; column 16, lines 41-52);

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transmitting to the specified transmitting apparatus one of the stored received test data, analyzed data of the received test data, and judgment data indicative of a judgment result of a comparison of the analyzed data and threshold values, after a predetermined time or at a specified time (column 15, lines 18-31; column 16, lines 41-65).

However, Schneider does not disclose remotely monitoring in a monitoring control terminal, a quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus.

Day teaches, in Figs. 1 and 2, a master test controller (monitoring control terminal) (40), local test controllers (42, 44) (a transmission apparatus and a receiving apparatus). Further, Day teaches that the master test controller (monitoring control terminal) includes a module for instructing the local test controllers (transmitting apparatus) (42) to initialize the test instruments (12, 46, 32), modules for instructing the local test controllers to perform various tests, modules for logging the results. Further, Day teaches that the local test controller 42, 44 send the results of the test to the master test controller 40 (column 3, lines 30-column 4, line 25).

Schneider, as stated above, discloses the specified receiving apparatus and specified receiving apparatus (testing apparatus). The difference between the claimed invention and the Schneider reference is that the claimed testing apparatus are controlled remotely.

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to add a **monitoring control terminal that remotely monitors** the quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus, such as that suggested by Day, in the technique for measuring the performance of wire

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pairs of Schneider in order to determine which device or cable causing a fault with out sending a maintenance or service person to each transmission apparatus.

4. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Admitted Prior Art (Fig. 2) in view of Schneider et al. '238.

The Admitted Prior Art discloses, in Fig. 2, a transmission apparatus comprising: a mux/dmux section, an order wire section, a codec section, a branching and combining section, and a 2-wire/4-wire converter.

However, the Admitted Prior Art does not disclose **a monitoring processor and an order wire monitoring controller**, the order wire mentoring controller controlling transmission of test data stored in the storage section to an order wire line, controlling storage of test data received via the order wire line to the storage section, and controlling transmission and reception of one of the received test data, analyzed data of the received test data and judgment data indicative of a judgment result of a comparison of the analyzed data and threshold values. Further, the Admitted Prior Art does not disclosed controlling a loop-back transmission of the audio data stored in the storage section to a transmitting source, in response to a lapse of a predetermined time or a transmission instruction.

Schneider teaches a system for testing a line of a communication network for a digital subscriber line service. Further, Schneider teaches a test unit coupled to the receiving end of the transmission line; a storage device stores sets of threshold values for a number of services; and a processor process a set of samples for a test waveform corresponding to a selected one of the

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digital subscriber line services and processes the captured digital samples and compares to a selected set of threshold values (column 7, lines 4-49).

Further, Schneider teaches a loop verification system for an ADSL communication system. The modem 193 enables the test equipment to send and receive test control data over the line 300 to and from the test equipment 265 (claimed controls a loop-back transmission of the data stored in the storage section in response to a transmission instruction) (column 15, lines 46-53; column 14, lines 11-17).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a monitoring processor and an order wire monitoring controller, such as suggested by Schneider, in the order wire section of the Admitted Prior art in order to enable testing and maintenance of in-service lines (column 4, lines 53-58).

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Admitted Prior Art (Fig. 2) in view of Schneider et al. '238 and Day '696.

The Admitted Prior Art discloses, in Fig. 2, a transmission apparatus comprising: a mux/dmux section, an order wire section, a codec section, a branching and combining section, and a 2-wire/4-wire converter.

However, the Admitted Prior Art does not disclose **a monitoring processor and an order wire monitoring controller**, the order wire mentoring controller controlling transmission of test data stored in the storage section to an order wire line, controlling storage of test data received via the order wire line to the storage section, and controlling transmission and reception of one of the received test data, analyzed data of the received test data and judgment data

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indicative of a judgment result of a comparison of the analyzed data and threshold values (**as in claims 1, 2, 4, 5**). Further, the Admitted Prior Art does not disclosed controlling a loop-back transmission of the audio data stored in the storage section to a transmitting source, in response to a lapse of a predetermined time or a transmission instruction (**as in claims 3, 6**).

Schneider teaches a system for testing a line of a communication network for a digital subscriber line service. Further, Schneider teaches a test unit coupled to the receiving end of the transmission line; a storage device stores sets of threshold values for a number of services; and a processor process a set of samples for a test waveform corresponding to a selected one of the digital subscriber line services and processes the captured digital samples and compares to a selected set of threshold values (column 7, lines 4-49) (**as in claims 1, 2, 4, 5**).

Further, Schneider teaches a loop verification system for an ADSL communication system. The modem 193 enables the test equipment to send and receive test control data over the line 300 to and from the test equipment 265 (claimed controls a loop-back transmission of the data stored in the storage section in response to a transmission instruction) (column 15, lines 46-53; column 14, lines 11-17) (**as in claims 3, 6**).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a monitoring processor and an order wire monitoring controller, such as suggested by Schneider, in the order wire section of the Admitted Prior art in order to enable testing and maintenance of in-service lines (column 4, lines 53-58).

The Admitted Prior Art in view of Schneider discloses all the claim limitations as stated above, except for remotely monitoring in a monitoring control terminal, a quality of the order

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wire line between a specified transmitting apparatus and a specified receiving apparatus (as in claims 1-4).

Day teaches, in Figs. 1 and 2, a master test controller (monitoring control terminal) (40), local test controllers (42, 44) (a transmission apparatus and a receiving apparatus). Further, Day teaches that the master test controller (monitoring control terminal) includes a module for instructing the local test controllers (transmitting apparatus) (42) to initialize the test instruments (12, 46, 32), modules for instructing the local test controllers to perform various tests, modules for logging the results. Further, Day teaches that the local test controller 42, 44 send the results of the test to the master test controller 40 (column 3, lines 30-column 4, line 25).

Schneider, as stated above, discloses the specified receiving apparatus and specified receiving apparatus (testing apparatus). The difference between the claimed invention and The Admitted Prior Art in view of Schneider is that the claimed testing apparatus are controlled remotely.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a monitoring control terminal that remotely monitors the quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus, such as that suggested by Day, in the technique for measuring the performance of wire pairs of the Admitted Prior Art in view of Schneider in order to determine which device or cable causing a fault without sending a maintenance or service person to each transmission apparatus.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al.

'238 in view of Day as applied to claim 7 above, and further in view of the Admitted Prior Art.



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Schneider in view of Day discloses all the claim limitations as stated above. Further, Schneider suggests that the inventive method may be applied to lines of a variety of telecommunications networks that carry digital data services.

However, Schneider in view of Day does not expressly disclose A/D converter.

The Admitted Prior art teaches, in Fig 2, converting DTMF signal into digital signal (CODEC 75).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a A/D converter, such as suggested by the Admitted Prior art, in the system of Schneider in view Day in order to provide a system for testing lines of a variety of telecommunications networks.

#### ***Allowable Subject Matter***

7. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 14-16 are allowed.

#### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (703) 308-4754. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST  
July 24, 2004

  
**JOHN PEZZLO**  
**PRIMARY EXAMINER**